

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P390506

Luminaire Tested: **22CZ2-60VHE-HRP-UNV-L935-CD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P390506
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-60VHE-HRP-UNV-L935-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4385.0 lumens
Efficiency: N/A
Efficacy: 99.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

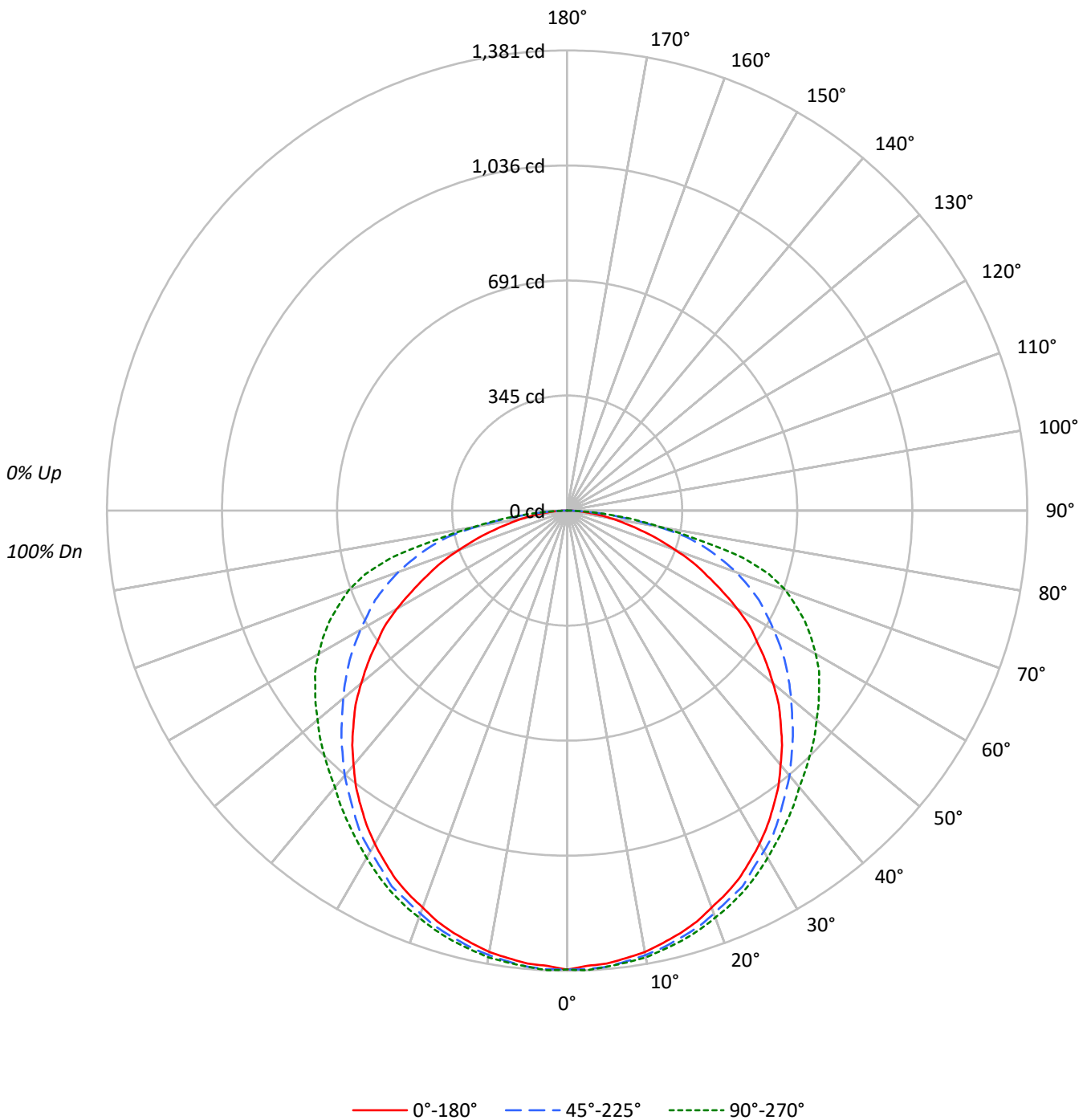
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3707	3707	3707
5°	3686	3712	3712
10°	3675	3702	3720
15°	3658	3694	3721
20°	3630	3686	3723
25°	3620	3697	3736
30°	3588	3668	3739
35°	3550	3656	3762
40°	3502	3649	3808
45°	3449	3646	3928
50°	3376	3673	4092
55°	3284	3753	4328
60°	3177	3854	4635
65°	2958	4046	5012
70°	2716	4238	5482
75°	2381	4460	5669
80°	2050	4249	4449
85°	1794	3088	3387



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.3	3.0
10°-20°	374.1	8.5
20°-30°	570.8	13.0
30°-40°	696.9	15.9
40°-50°	745.2	17.0
50°-60°	719.2	16.4
60°-70°	619.1	14.1
70°-80°	418.9	9.6
80°-90°	110.5	2.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1075.1	24.5
0°-40°	1772.0	40.4
0°-60°	3236.4	73.8
0°-90°	4385.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4385.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1377	1377	1377	1377	1377	
5°	1364	1368	1374	1374	1374	130
15°	1313	1316	1326	1332	1336	370
25°	1219	1226	1245	1252	1258	561
35°	1081	1090	1113	1136	1145	676
45°	906	923	958	1006	1032	700
55°	700	723	800	881	923	627
65°	464	510	636	736	787	462
75°	229	303	429	516	545	246
85°	58	81	100	103	110	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1377.4	1377.4	1377.4	1377.4	1377.4
2.5°	1367.7	1371.0	1377.4	1377.4	1380.6
5°	1364.5	1367.7	1374.2	1374.2	1374.2
7.5°	1354.8	1358.1	1364.5	1367.7	1367.7
10°	1345.1	1348.4	1354.8	1358.1	1361.3
12.5°	1329.0	1332.2	1341.9	1348.4	1348.4
15°	1312.9	1316.1	1325.8	1332.2	1335.5
17.5°	1293.5	1300.0	1309.7	1316.1	1319.3
20°	1267.7	1274.2	1287.1	1296.8	1300.0
22.5°	1245.1	1251.6	1264.5	1274.2	1280.6
25°	1219.3	1225.8	1245.1	1251.6	1258.1
27.5°	1187.1	1193.5	1209.7	1222.6	1232.2
30°	1154.8	1161.3	1180.6	1196.8	1203.2
32.5°	1119.3	1129.0	1151.6	1164.5	1174.2
35°	1080.6	1090.3	1112.9	1135.5	1145.1
37.5°	1041.9	1051.6	1074.2	1103.2	1116.1
40°	996.8	1009.7	1038.7	1077.4	1083.9
42.5°	954.8	971.0	996.8	1041.9	1058.1
45°	906.4	922.6	958.1	1006.4	1032.2
47.5°	861.3	877.4	916.1	974.2	1006.4
50°	806.4	829.0	877.4	945.2	977.4
52.5°	754.8	774.2	838.7	912.9	951.6
55°	700.0	722.6	800.0	880.6	922.6
57.5°	651.6	671.0	758.1	848.4	896.8
60°	590.3	616.1	716.1	812.9	861.3
62.5°	525.8	564.5	674.2	774.2	825.8
65°	464.5	509.7	635.5	735.5	787.1
67.5°	409.7	458.1	587.1	693.5	741.9
70°	345.2	406.4	538.7	641.9	696.8
72.5°	287.1	354.8	483.9	587.1	635.5
75°	229.0	303.2	429.0	516.1	545.2
77.5°	177.4	248.4	367.7	393.5	396.8
80°	132.3	196.8	274.2	277.4	287.1
82.5°	90.3	138.7	177.4	193.5	196.8
85°	58.1	80.6	100.0	103.2	109.7
87.5°	25.8	29.0	35.5	32.3	32.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)